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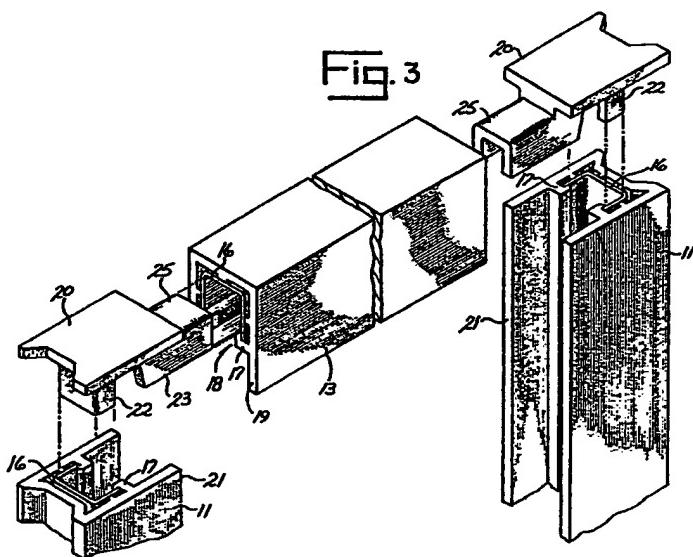
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E1J

(54) Corner connectors for window frames

(57) A window sash assembly includes abutting frame members joined at their corners by corner pieces which are substantially concealed after assembly of the sash in a window frame, and which cover one end face of a frame member; the corner pieces comprise a plate 20, from the inner face of which spigots 22,23 project at right angles to each other and locate in the channels 18 of the members. Screws or adhesives may be used in the joints.



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Fig. 1

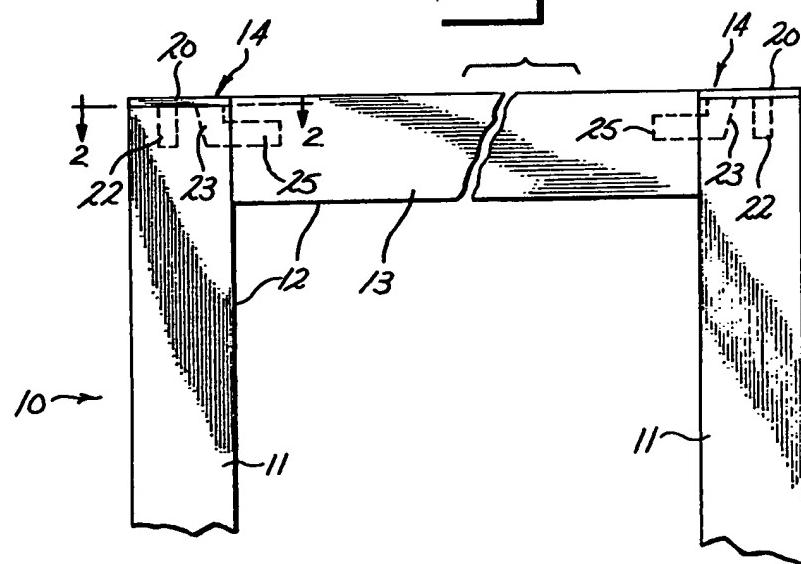
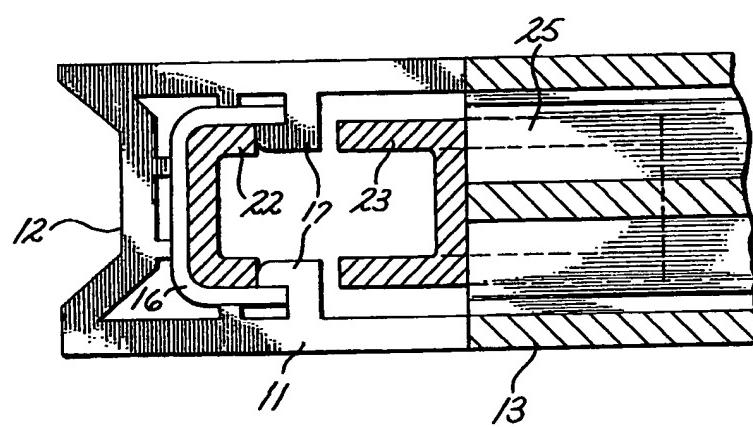
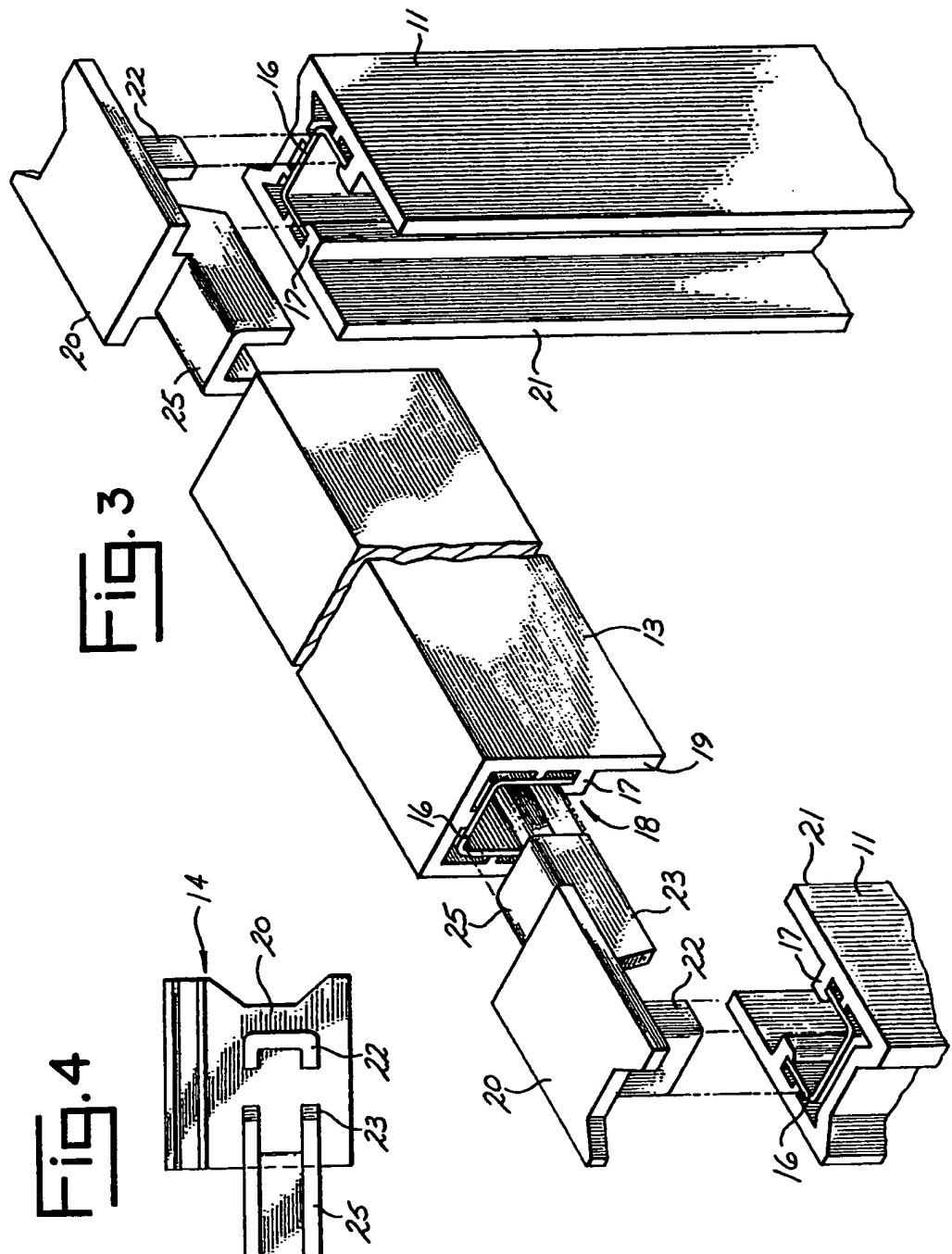


Fig. 2





SPECIFICATION**Window sashes**

- 5 Corner pieces for window sashes are designed to connect the sash components and are normally visible at the corners of the window assembly.
- An object of the present invention is to provide a construction in which the corner pieces are substantially hidden from view once the sash is installed in the window frame, the corner pieces being of economical construction while providing a high quality sash of pleasing appearance.
- In accordance with the present invention there is provided a window sash construction comprising a plurality of adjoining frame members connected by corner pieces to form a frame for retaining a window glazing panel, each frame member including an internal channel and each corner piece comprising a plate having an inner face with first and second projections located respectively in the internal channels of the adjoining frame members, the second projection extending generally perpendicular to the first projection, and the said inner face of the corner plate overlying an end face of one of the frame members.
- The frame members are generally positioned perpendicular to one another and an end face of the other frame member at each corner then preferably abuts the panel receiving face of the said one frame member.
- By way of example only, an embodiment of the invention will now be described with reference to the accompanying drawings in which:
- 35 *Figure 1* is a fragmentary front view of a window sash 2 embodying this invention;
- Figure 2* is a fragmentary sectional view taken along line 2-2 of Fig. 1;
- Figure 3* is an exploded perspective view of the fragmented component parts of the window sash of Fig. 1; and
- Figure 4* is a bottom perspective view of a corner piece used in the construction of the sash.
- As illustrated in the drawings, window sash 10 includes frame members 12 which are joined to one another by corner pieces 14. For a window having a square or rectangular configuration, there will be four frame members 12 joined by four corner pieces 14.
- 50 Each frame member 12 is of channel section with side walls 11 connected by an end wall 13 to form a longitudinally extending channel 18. The channels 18 and corner pieces 14 cooperate to define a continuous internal channel into which a window glazing panel (not shown) is fitted. Frame members 12 are conveniently formed from a metal or plastic composition by extrusion. A U-shaped reinforcement 16 is inserted into channel 18 of each frame member 12.
- 55 Each corner piece 14 includes a plate 20 from which spaced projections 22 and 23 extend in specific angular positions with respect to the angular orientation or positioning of the abutting sash members 12. In the illustrated embodiment, projection 22 of each corner piece extends at a 90° angle

to plate 20 to accommodate the 90° orientation, of one of the adjacent members 12. Projection 23 of each corner piece first extends in the same direction as projection 22 and then turns outwardly away from projection 22 to form a foot 25.

To assemble sash 10 at each of its corners, one of the corner piece projections 22, 23 is fitted snugly into channel 18 of a sash member 12. The projection is inserted into the U-shaped reinforcement 16 of the sash member and positioned inside locator shoulders 17 which project inwardly into channel 18 from the side walls 11. The other projection of the corner piece is then fitted snugly into channel 18 of the abutting sash member 12, the projection again being inserted into the U-shaped reinforcement 16 next to locator shoulders 17. With the corner piece so connected to the adjoining frame members, an end face 19 of one member will abut the panel receiving face 21 of the other member, and the plate 20 of the corner piece will overlie and abut an end face 19 of the said other member.

Normally, screws or similar mechanical fasteners will be used between corner piece projections 22, 23 and the members 12 to secure the corner pieces 14 to the members. The sash can then be dismantled to allow replacement of the glazing panel. Alternatively, a glue or similar bonding material is applied between the corner pieces 14 and the members 12.

CLAIMS

1. A window sash construction comprising a plurality of adjoining frame members connected by corner pieces to form a frame for retaining a window glazing panel, each frame member including an internal channel and each corner piece comprising a plate having an inner face with first and second projections located respectively in the internal channels of the adjoining frame members, the second projection extending generally perpendicular to the first projection, and the said inner face of the corner plate overlying an end face of one of the frame members.
2. A window sash according to Claim 1 wherein the frame members are positioned perpendicularly with respect to each other, an end face of the other frame member at each corner abutting the panel receiving face of the said one frame member.
3. A window sash substantially as herein described and with reference to the accompanying drawings.